

Amendments to the Specification:

Please insert the enclosed paper copy of the sequence listing into the application after the section entitled "Abstract of the Disclosure."

Please replace paragraph [0056] on pages 21 and 22 of the application with the following rewritten paragraph:

--d. Synthesis of Diamine- and Gd-Substituted A β Derivatives. A β 1-30, with the sequence Ahx (Fmoc-6-aminohexanoic acid)-DAEFRHDSGYEVHHQKLVFFAEDVGSNKG (SEQ ID NO:5), was synthesized on an ABI 433 (Foster City, CA) peptide synthesizer using HBTU activation and the manufacturer's suggested synthesis protocols. The starting resin was Ala-NovaSyn TGA (Calbiochem-Novabiochem, San Diego, CA). Glutamic acid residues 3, 11, and 22 were synthesized with *N*- α -Fmoc-L-glutamyl- δ -*N*-(4-aminobutyl) carbamic acid *tert*-butyl ester (3b), and aspartic acid residues 7 and 23 were synthesized with *N*- α -Fmoc-L-aspartyl- γ -*N*-(4-aminobutyl) carbamic acid *tert*-butyl ester described above. After completion of the synthesis and final Fmoc deprotection, diethylenetriaminepentaacetic acid anhydride (DTPA) was added to the N-terminal Ahx residue by dissolving 120 mg of the DTPA in 2 ml of DMSO/8 ml DMF and reacting the DTPA solution with the peptide-resin, which had been washed previously with DIEA/DCM. The coupling of DTPA was allowed to proceed overnight at RT. Completion of the reaction was verified by a negative ninhydrin reaction. The A β 1-30 peptide was then cleaved from the resin support using 5% crystalline phenol, 5% water, 2.5% triisopropylsilane, and 87.5% TFA for two hours at RT. The peptide was purified by reverse-phase HPLC on a C18 Jupiter column (250 mm x 21.2 mm, Phenomenex Corp) using a gradient system of 0.1% aqueous TFA containing 80% acetonitrile. The calculated mass weight 3390 amu of for A β 1-30 and 4231 amu for DTPA-[N-4ab/Q-4ab]A β 30 was confirmed by electrospray ionization mass spectrometry (Sciex API 165). The element Gadolinium (Gd) was chelated at equal mole concentration to the DTPA functional group of the A β 1-30 peptide using Gd(III) chloride hexahydrate (Sigma) in water at RT for one hour (now designated as Gd[N-4ab/Q-4ab]A β 30) (Fig. 1). All A β peptides were labeled with ¹²⁵I/¹³¹I using a modified chloramine T procedure as described previously (Poduslo, J.F., et al., Neurobiol. Dis. 4:27-34, 1997).--

Amendments to the Drawings:

The attached sheet of drawing includes changes to Fig. 1. This sheet replaces the original Fig. 1. The only difference between the original and the replacement sheet is the SEQ ID NOs added to the replacement sheet.